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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,786	01/07/2004	Ullas Gargi	200209290-1	5270

22879 7590 06/26/2009

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EXAMINER	
WONG, WILLIAM	
ART UNIT	PAPER NUMBER
2179	

NOTIFICATION DATE	DELIVERY MODE
06/26/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/752,786	GARGI, ULLAS	
	Examiner	Art Unit	
	WILLIAM WONG	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21 and 23-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 23-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the communication filed on 03/23/2009.

- Claims 1, 25, 28, and 32 have been amended.
- Claim 22 has been cancelled.

Claims 1-21 and 23-32 are pending and have been examined. Previous rejections under 35 USC 101 have been withdrawn in view of amendments. Previous prior art rejections of claims 1-21 and 23-28 are maintained. Previous prior art rejections of claims 29-32 are withdrawn in view of amendments.

Claim Objections

1. Claims 1, 3, 5, 7, 12, 17, and 25-32 are objected to because of the following informalities:

- In general, applicant should use consistent terminology when describing the same element in the claims for the purpose of clarity.
- As per claim 1, "said medium" should be "said tangible medium" for the purpose of consistency and clarity. It is unclear whether "stored digital content" in line 7 is referring to "said digital content", or is different. Line 14 should end with the word "and". The above similarly applies to claims 25, 28, 29, and 32.
- As per claim 3, it is unclear whether “said file” is referring to the “at least one stored file” in line 6, or the "stored file" of claim 1, or different. The above similar applies to claims 26 and 30.

- As per claim 5, “said medium” in line 2 should be “said tangible medium” for the purpose of consistency and clarity.
- As per claim 7, it is unclear whether “said stored file” is referring to the “at least one stored file” in line 4, or the "stored file" of claim 1, or different. The above similar applies to claims 27 and 31.
- As per claim 12, “said medium” in line 3 should be “said tangible medium” for the purpose of consistency and clarity.
- As per claim 17, there is lack of antecedent basis for "said modes" in line 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-21 and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimmerman (US 20020193975 A1).

As per independent claim 1, Zimmerman teaches a **method for assisting navigation of digital content using a tangible medium, comprising: receiving an instruction to access digital content corresponding to a portion of a tangible medium** (e.g. in figure 1 and in paragraph 20 on page 2, “The system generally comprises a probe device and a computer. The probe is

manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media" and paragraph 26), **said medium being readable by a user-positionable input device** (e.g. in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media"), **and said digital content being accessible from a stored file** (e.g. in paragraph 118 on page 7, "All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user in any of: conventional computer storage (local or remote), display (i.e., CRT) and/or hard copy (i.e., printed) formats"); **determining and accessing stored digital content corresponding to said input device's instantaneous position on said tangible medium** (e.g. in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user"); **and enabling electronic navigation of said digital content** (e.g. in paragraph 21 on page 2, "Preferably, the multimedia data and off-line media are designed so as to provide an educational experience in which the synchronization of the probe position and output provides the visceral experience normally experienced

by a user of a real tool. To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media", in paragraphs 77 and 90), **including enabling toggling between browsing of said tangible medium and browsing of said digital content on a computer screen using said input device** (e.g. in paragraphs 24, 77, 81, and 89-90, the user can move a finger, a probe or other device over the tangible medium onto a particular section, icon, word, etc. of the tangible medium, browsing the tangible medium; through this, digital content is retrieved which toggles to the browsing of the digital content (e.g. moving the frog's eye around on the computer screen, playing an audio or video clip); the user can then select a different section, icon, word, etc., toggling back to browsing of the tangible medium), **said browsing of digital content being performed using said input device or a second input device, in which said browsing of digital content includes enabling a user to control translational or rotational movements as directed by the user** (e.g. in paragraphs 70 and 81, and figure 1), **in which said digital content comprises subject matter that differs from content of said tangible medium** (e.g. in figures 7, 8a, and 8b and paragraphs 80-83, see also response to arguments).

As per claim 2, the rejection of claim 1 is incorporated and Zimmerman further teaches **determining a change in position of said input device on said tangible medium; and obtaining a new stored file corresponding to said change in position** (e.g. in paragraph 24 on page 2, "the printed medium additionally

has a number of icons representing different tools to be simulated. By placing the probe over a particular icon, the tool represented by the icon is selected such that the retrieved multimedia data corresponds to the selected tool").

As per claim 3, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said determining and accessing stored digital content includes: obtaining digital signals representing a localized region of said tangible medium, said localized region being proximate to said position of said input device on said tangible medium** (e.g. in paragraph 27, "digital camera connected to a computer, or placing a book on a digital scanner", and in paragraph 66, "Referring to FIG. 4, in a preferred embodiment of the present invention, probe 104 contains a CMOS monochromatic camera 400 with wide angle lens 406 and illumination system 410 to capture an image segment 408 printed on the medium 106, underneath the probe. The image is detected and transmitted to the computer 100 by image processor 402, communicating to the computer 100 through connector 404, such as Universal Serial Bus (USB)"); **determining at least one stored file corresponding to said localized region, and containing said digital content, by using pattern matching** (e.g. in paragraph 66 on page 4, "The image segment 408 is a portion of a full image 412 appearing in the off-line media 106. An image retrieval method running in the computer 100 receives the image segment 408, and

outputs image identification and position information of the image segment 408" and in paragraph 68 on page 4, "FIG. 5 shows a flow chart summarizing the methods of sampled image to reference image matching... At block 506 the salient features of the sampled image are extracted. At block 508 the salient features of the sampled image are used to find the closest reference image" in view of figure 5; comparing salient features is one form of pattern matching); **and retrieving an appropriate portion of said file to enable user navigation** (e.g. in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user... To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media").

As per claim 4, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said pattern matching is based on correlating a pattern within said localized region with a pattern in said stored file** (e.g. in paragraph 68 on page 4, "FIG. 5 shows a flow chart summarizing the methods of sampled image to reference image matching... At block 504 the sampled image is captured by the camera 400 in the probe 104. At block 506 the salient features of the sampled image are extracted. At

block 508 the salient features of the sampled image are used to find the closest reference image" in view of figure 5).

As per claim 5, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said pattern matching is based on correlating a pattern embedded within said medium itself** (e.g. in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media" and in paragraph 45 on page 3, "Printed, off-line medium 106 has a suitable image 108 imprinted thereon").

As per claim 6, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said tangible medium was previously created independently of said file** (e.g. in paragraph 87 on page 6, "In an application of the invention where the media 106 includes text, the user may circle text, or swipe the text with the probe 104 to select, translate, provide definition (e.g. from a dictionary), underline, highlight, make bold, copy or cut the corresponding electronic text appearing in the computer 100. In this application, images of the text, or salient features of the text need not be stored in the computer 100. In a preferred embodiment, text is stored as ASCII characters along with the font and other layout and contextual information to enable the computer to generate an

accurate image of the page, or otherwise sufficiently represent the page" and in paragraph 81, "image presented from the storage device 102 can be from any source").

As per claim 7, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said determining and accessing stored digital content includes: obtaining coordinates of said position of said input device on said tangible medium, determining at least one stored file corresponding to said position and containing said digital content, determining coordinates within said stored file, corresponding to said input device position coordinates, by using coordinate mapping** (e.g. in paragraph 51, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b, and in paragraphs 54, 61, and 76, "x, y, and z"); **and using said determined coordinates to retrieve an appropriate portion of said file to enable user navigation** ("...resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figure 2b).

As per claim 8, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said coordinate mapping involves a linear transformation from tangible medium coordinates to stored file coordinates** (e.g. in paragraph 51 on page 3, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized

image 204 on the computer screen of human bones 206" in view of figures 2a and 2b, in paragraph 54, "the absolute position of the probe is transmitted to the computer. In this manner, continuous motion of a computer generated image is provided as the probe is swept over the printed medium", and in paragraphs 61, 76, and 81).

As per claim 9, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein at least one of said tangible medium and said stored file includes a grid system** (e.g. in paragraph 51 on page 3, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b, and in paragraphs 54, 61, and 76, "x, y, and z").

As per claim 10, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said determining said stored file includes utilizing a file index read from said tangible medium** (e.g. in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image identification information encoded in bar codes printed on the off-line media").

As per claim 11, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein a file index was previously generated during creation of said tangible medium** (e.g. in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image

identification information encoded in bar codes printed on the off-line media").

As per claim 12, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said tangible medium includes a plurality of machine-readable patterns embedded in said medium itself** (e.g. in paragraph 45 on page 3, "Printed, off-line medium 106 has a suitable image 108 imprinted thereon" and in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image identification information encoded in bar codes printed on the off-line media"); **said obtaining coordinates of said position of said input device is based on reading a unique pattern at said position of said input device, and analyzing said unique pattern to determine said coordinates** (e.g. in paragraph 51 on page 3, "The probe 104 is placed over the picture of the hand 200 in book. The probe 104 sends bar code information to the computer. The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b).

As per claim 13, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said digital content includes an image, and said navigation includes displaying said image** (e.g. in paragraph 81 on page 5, "The invention matches the sampled image 706 to a reference image of the frog's eye retrieved from storage device 102. Based on the probe 104

position, reference image, and tool selected, a magnified view of a frog eye 802 is presented on the computer screen 800. The invention synchronizes the movement of the probe 104 to the display of the frog's eye 802. When the user moves the tool to the right, the image of the frog's eye on the computer 800 screen would also move to the right, giving the user the visceral experience of holding an actual microscope over a frog's eye" in view of figure 7).

As per claim 14, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said digital content includes audio, and said navigation includes playing said audio** (e.g. in paragraph 77 on page 5, "When the user 616 touches a particular word, for example "forest" 618 as show in FIG. 6, the computer 610 retrieving an audio clip of the spoken word "forest" from storage 614, and played it out speakers 620. When the user 616 touches the drawing 606, the sound of a bear growling occurs" in view of figure 6).

As per claim 15, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium serves as a video storyboard** (e.g. in paragraph 89 on page 6, "The remote server finds the best reference image match. In response to this match, the remote server sends a video clip 914 (for example MPEG1 compressed video) to the

computer for presented on the computer display 912, in response to the sampled image in the magazine 904" in view of figure 9a and 9b).

As per claim 16, the rejection of claim 1 is incorporated and Zimmerman further **wherein said navigation includes at least one user-selectable mode** (e.g. in paragraph 83 on page 5, "Since the simulated display on the computer screen is not bound by the static reality of off-line media, the synchronized presentation may include dynamic images. For example when viewing the eye, the user can press a button on the probe 104 (not shown) to generate a virtual bright light at the probe, causing the image of the frog's eye 802 to retract in the socket").

As per claim 17, the rejection of claim 16 is incorporated and Zimmerman further teaches **wherein said modes are designated on, and selectable from, said tangible medium** (e.g. in paragraph 24 on page 2, "the printed medium additionally has a number of icons representing different tools to be simulated. By placing the probe over a particular icon, the tool represented by the icon is selected such that the retrieved multimedia data corresponds to the selected tool" and in paragraph 66 on page 4, "A presentation method running in the computer 100 receives the image segment 408 information and presents multimedia content contained in a CD-ROM storage device 102

based on the virtual tool or function selected by the user" in view of figure 4).

As per claim 18, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium includes paper** (e.g. in paragraph 21 on page 2, "The probe is manipulated over off-line media, preferably printed medium," and in paragraph 26 on page 2, "Off-line media can be any non-networked media or object including books, magazines, newspapers, posters, pictures, mosaics, tapestry, two and three dimensional objects, animals, people, furniture, toys, cups, plates, silverware, business cards, and clothing").

As per claim 19, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said input device includes an optical device** (e.g. in paragraph 23 on page 2, "The probe includes a camera to capture image segments and transmits them to a computing device").

As per claim 20, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said input device includes a radio frequency device** (e.g. in paragraph 23 on page 2, "The probe includes a camera to capture image segments and transmits them to a computing device, either local or remote, communicating through wired or wireless means" and in paragraph 45 on page 3, "...Probe device 104 is attached to computer 100 via any suitable I/O interface so as to allow the probe to input data to computer 100. The I/O interface can including

wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means").

As per claim 21, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium is two-dimensional, yet includes three-dimensional information** (e.g. in paragraph 26 on page 2, "Off-line media can be any non-networked media or object including books, magazines, newspapers, posters, pictures, mosaics, tapestry, two and three dimensional objects, animals, people, furniture, toys, cups, plates, silverware, business cards, and clothing...").

As per claim 23, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium was previously created using said stored file** (e.g. in paragraphs 45 and 50-51, "a book to be published using conventional printing techniques, and bar codes to be placed on the pages after conventional printing... Bar codes 202 embedded in the image provide position and image identification data to the computer").

As per claim 24, the rejection of claim 1 is incorporated and Zimmerman further teaches **implemented in a handheld portable electronic device** (e.g. in paragraph 118, "the present invention may be implemented on a conventional IBM PC or equivalent, mobile phone, personal digital assistant

(PDA), tablet computer, multi-nodal system (e.g., LAN) or networking system (e.g., Internet, WWW)").

Claims 25, 26, and 27 are the computer-readable storage medium claims corresponding to the method claims 1, 3 and 7 respectively, and are rejected under the same reasons set forth in connection with the rejection of claims 1, 3, and 7. Zimmerman further teaches the **computer-readable storage medium comprising logic instructions** (e.g. in paragraph 118 on page 7, "The above system and its described functional elements are implemented in various computing environments... All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user...").

Claim 28 is the system claim corresponding to the method claim 1 and is rejected under the same reasons set forth in connection with the rejection of claim 1. Zimmerman further teaches the **interface** (e.g. in paragraph 45 on page 3, "Probe device 104 is attached to computer 100 via any suitable I/O interface so as to allow the probe to input data to computer 100. The I/O interface can including wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means" and in paragraph 118 on page 7, "For example, the present invention may be implemented on... multi-nodal system (e.g., LAN) or networking system (e.g., Internet, WWW)") and

processor (e.g. in paragraph 23 on page 2, "The computing device analyses the image segments, determines the image identity, and retrieves and presents electronic media corresponding to the image to the user").

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman (US 20020193975 A1) in view of Izawa (US 5385371 A).

As per independent claim 29, Zimmerman teaches **a system for assisting navigation of digital content using a tangible medium, comprising: an interface** (e.g. in paragraph 45 on page 3, "Probe device 104 is attached to computer 100 via any suitable I/O interface so as to allow the probe to input data to computer 100. The I/O interface can including wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means") **configured to receive an instruction from an input device to access digital content corresponding to a portion of a tangible medium** (e.g. in figure 1 and in

paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media" and paragraph 26)**: said medium being readable by said input device** (e.g. in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media")**; and said digital content being accessible from a stored file** (e.g. in paragraph 118 on page 7, "All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user in any of: conventional computer storage (local or remote), display (i.e., CRT) and/or hard copy (i.e., printed) formats")**; and a processor** (e.g. in paragraph 21, "The system generally comprises a probe device and a computer", and paragraph 23, "The computing device analyses the image segments, determines the image identity, and retrieves and presents electronic media corresponding to the image to the user") **configured to: determine and access digital content corresponding to said input device's position on said tangible medium** (e.g. in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from

storage and presented to the user”); **enable electronic navigation of said digital content** (e.g. in paragraph 21 on page 2, “Preferably, the multimedia data and off-line media are designed so as to provide an educational experience in which the synchronization of the probe position and output provides the visceral experience normally experienced by a user of a real tool. To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media”, in paragraphs 77 and 90); **and enable toggling between browsing of said tangible medium and browsing of said digital content on a computer screen using said input device** (e.g. in paragraphs 24, 77, 81, and 89-90, the user can move a finger, a probe or other device over the tangible medium onto a particular section, icon, word, etc. of the tangible medium, browsing the tangible medium; through this, digital content is retrieved which toggles to the browsing of the digital content (e.g. moving the frog’s eye around on the computer screen, playing an audio or video clip); the user can then select a different section, icon, word, etc., toggling back to browsing of the tangible medium), **said browsing of said digital content being performed using said input device or a second input device, in which said browsing of said digital content includes enabling a user to control translational or rotational movements of said digital content as directed by the user** (e.g. in paragraphs 70 and 81, and figure 1), but does not specifically teach **in which said tangible medium is a map of an area, and said digital content is a map**

of a portion of said area, and in which said digital content further includes additional information selected from the group consisting of roads, streets, and paths. However, Izawa teaches a tangible medium that is a map of an area, which is readable by an input device to display additional information in the form of digital content, wherein the digital content is a map of a portion of the area including roads, streets, or paths (e.g. in column 5 line 53 - column 6 line 22). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Zimmerman to include the map reading and accessing of Izawa for the purpose of allowing a user to quickly and easily browse map information of a particular area.

As per claim 30, the rejection of claim 29 is incorporated and Zimmerman further teaches **wherein said processor is further configured to: obtain digital signals representing a localized region of said tangible medium, that is proximate to said position of said input device on said tangible medium** (e.g. in paragraph 27, "digital camera connected to a computer, or placing a book on a digital scanner", and in paragraph 66, "Referring to FIG. 4, in a preferred embodiment of the present invention, probe 104 contains a CMOS monochromatic camera 400 with wide angle lens 406 and illumination system 410 to capture an image segment 408 printed on the medium 106, underneath the probe. The image is detected and transmitted to the computer 100 by image processor 402, communicating to the computer 100 through connector 404, such as Universal Serial Bus (USB)"**); determine at least one stored file**

corresponding to said localized region, and containing said digital content, by using pattern matching (e.g. in paragraph 66 on page 4, "The image segment 408 is a portion of a full image 412 appearing in the off-line media 106. An image retrieval method running in the computer 100 receives the image segment 408, and outputs image identification and position information of the image segment 408" and in paragraph 68 on page 4, "FIG. 5 shows a flow chart summarizing the methods of sampled image to reference image matching... At block 506 the salient features of the sampled image are extracted. At block 508 the salient features of the sampled image are used to find the closest reference image" in view of figure 5; comparing salient features is one form of pattern matching)**; and retrieve an appropriate portion of said file for user navigation** (e.g. in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user... To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media").

As per claim 31, the rejection of claim 29 is incorporated and Zimmerman further teaches **wherein said processor is further configured to: obtain coordinates of said position of said input device on said tangible medium, determine at least one stored file corresponding to said position and containing said digital content,**

determine coordinates within said stored file, corresponding to said input device position coordinates, by using coordinate mapping (e.g. in paragraph 51, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b, and in paragraphs 54, 61, and 76, "x, y, and z"); **and access an appropriate portion of said file based on said determined coordinates to enable user navigation** ("...resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figure 2b).

As per independent claim 32, Zimmerman teaches **a method for assisting navigation of digital content using a tangible medium, comprising: receiving an instruction to access digital content corresponding to a portion of a tangible medium** (e.g. in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media" and paragraph 26), **said medium being readable by a user-positionable input device** (e.g. in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media"), **and said digital content being accessible**

from a stored file (e.g. in paragraph 118 on page 7, "All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user in any of: conventional computer storage (local or remote), display (i.e., CRT) and/or hard copy (i.e., printed) formats"**; determining and accessing stored digital content corresponding to said input device's instantaneous position on said tangible medium** (e.g. in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user"**); enabling electronic navigation of said digital content, said electronic navigation of said digital content being performed using said input device or a second input device** (e.g. in paragraph 21 on page 2, "Preferably, the multimedia data and off-line media are designed so as to provide an educational experience in which the synchronization of the probe position and output provides the visceral experience normally experienced by a user of a real tool. To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media", in paragraphs 77, and 90)**, and enabling use of multiple tangible media to facilitate three-dimensional navigation** (e.g. in paragraph 72 on page 5, "When three sequential sampled images are identified as belonging to the same reference image,

a match is declared", in paragraph 22 on page 7, "the multimedia data and off-line media is designed so as to provide a commerce experience in which the synchronization of the off-line media and electronic material enhances the knowledge of the user to the products in the off-line media, for example, showing different views or colors of a dress, or a simulation of the user in the dress", in paragraph 26 which includes three-dimensional objects, in paragraphs 63, 76, 81 and 82 which includes navigating a plane and zooming, covering three dimensions, and figure 1 items 100, 110, 102, 104, and 106), **in which said browsing of digital content includes enabling a user to control translational or rotational movements as directed by the user** (in paragraphs 70 and 81, and figure 1), but does not specifically teach **in which said tangible medium is a map of an area, and said digital content is a map of a portion of said area, and in which said digital content further includes additional information selected from the group consisting of roads, streets, and paths**. However, Izawa teaches a tangible medium that is a map of an area, which is readable by an input device to display additional information in the form of digital content, wherein the digital content is a map of a portion of the area including roads, streets, or paths (e.g. in column 5 line 53 - column 6 line 22). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Zimmerman to include the map reading and accessing of Izawa for the purpose of allowing a user to quickly and easily browse map information of a particular area.

Response to Amendment

6. It is noted that applicant's amendments to the claims significantly change the scope of the claims.

Response to Arguments

7. Applicant's arguments filed 03/23/2009 have been fully considered but they are not persuasive.

Applicant argues in substance that Zimmerman allegedly does not specifically teach the digital content comprising subject matter that differs from the content of the tangible medium. However, examiner respectfully disagrees. As noted by applicant, Zimmerman retrieves a reference image of the frog's eye that matches the sampled image 706. Zimmerman clearly states that the reference image retrieved from the storage device is not merely a magnified version of the visual image on the media (e.g. in paragraph 81) as argued by applicant. It is clear from the description that system is meant to give the illusion of using a microscope (a simulation), not actually performing the operation of a microscope. Furthermore, sampling image 706 in figure 7, which includes eye 708, causes an image of figure 8a to be retrieved. As can be seen in the figure, the orientation of the eye is not even the same and the eye also includes additional detail (i.e. "subject matter" that differs). Further turning of a knob retrieves an image of figure 8b that show cells, rod structures, fibers, and endings (e.g. in paragraph 82), which are also reasonably also interpreted as "subject matter" that differs from the

content of the tangible media. Moreover, Zimmerman states that pressing a button on the probe causes the frog's eye to retract on the virtual image, which is clearly "subject matter" that differs from content of the media. As such, Zimmerman teaches the claimed limitations and the rejections stand.

Applicant's arguments with respect to claims 29-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5062068 A	Computerized analyzing system for piping network	Kondo; Shinya et al.
US 6813558 B1	Method and system for route planning	Lapstun; Paul et al.
US 6824057 B2	Method and apparatus for accessing electronic data via a familiar printed medium	Rathus; Spencer A. et al.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM WONG whose telephone number is (571)270-1399. The examiner can normally be reached on M-F 8:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Wong/
Examiner, Art Unit 2179

/Weilun Lo/
Supervisory Patent Examiner, Art Unit 2179